

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA**

CSX TRANSPORTATION, INC.

Plaintiff

v.

DISTRICT OF COLUMBIA, et al.

Defendants.

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Civil Action No. 05-00338 (ES)

DECLARATION OF DAVID J. SHUMAN

I, David J. Shuman, pursuant to 28 U.S.C. § 1746, do hereby declare under penalty of perjury that the foregoing is true and correct:

1. The following is based upon my personal knowledge and review of the discovery materials generated in this case, including the declarations and deposition testimony of Joseph C. Osborne, Jr. and John Gibson. For purposes of this declaration, "North-South" line refers to that portion of CSX Transportation Inc.'s ("CSX") rail lines on its I-95 North-South corridor and "East-West" line refers to CSX's East-West B&O line.
2. My name is David J. Shuman. I am Managing Director of R.L. Banks & Associates, Inc.
3. R.L. Banks & Associates, Inc. is a transportation consulting firm based in Washington, D.C. that is principally engaged in research respecting railroad economics, finance, engineering and regulatory issues.
4. I received an A.B. in Philosophy from Connecticut College in 1974, a J.D. from Boston University in 1977 and an M.B.A. from the University of Pennsylvania in 1979. My Master's thesis was on railroad maximum rate regulation. As a Wharton Public

Policy Fellow in 1978 and 1979, I worked at the Federal Railroad Administration's ("FRA") Office of Policy.

5. I joined R.L. Banks & Associates, Inc. in 1979 as Director, Public Policy Analysis. I was principal author of a study for the Interstate Commerce Commission ("ICC") on reforming economic regulation of motor carriers, and appeared as a witness for the ICC on that issue. I also testified at the U.S. Court of Claims as an expert on railroad economics and finance on behalf of the U.S. Department of Justice, and assisted the Department in a series of proceedings. For the Association of American Railroads ("AAR"), I prepared a report on tank and hopper car economics, aimed at reforming the method of compensating car owners

6. I joined Booz, Allen & Hamilton's railroad consulting group in 1987, where I was involved in several privatization efforts. I assisted Canadian National (CN) and Kansas City Southern (KCS) railroads in the strategic planning process, and at CN developed costing models used in developing rates in truck-competitive markets. I directed a study of the economic impact of dredging the Elizabeth River in Virginia. I was also manager of a study for the Air Force respecting the integration of missile-equipped Peacekeeper Rail Garrison trains in the commercial railroad network. Issues addressed included security, safety, and impact on commercial operations and economics.

7. In 1994, I returned to R.L. Banks & Associates, Inc. as Managing Director where I have been involved in a diverse set of projects, including the development of a regulatory structure for Zambia's major industry sectors, assisting in the quadrennial review of transportation legislation in Canada where I was asked by the Canadian Government to recommend revisions to the antitrust laws in light of North American rail

consolidation. For the Pension Benefit Guarantee Corporation I prepared an analysis of financial risks associated with the restructuring of Conrail and the division of most of its assets between its owners, CSX and Norfolk Southern Railroad ("NSR").

7. I have been interviewed by The New York Times and CBS Radio with respect to Motor carrier safety issues, I appeared as a guest on WBGG Radio in New York on January 10, 2005 to discuss terrorist threats to railroads in light of the Madrid bombing and a recent chlorine release incident in North Carolina. I wrote an article which appeared in the Journal of Transportation Law, Logistics and Policy focusing on cost/benefit issues respecting FRA rail grade crossing regulations.

8. At the request of the District of Columbia Office of the Attorney General, I have read the affidavit of John Gibson and the declaration of Joseph C. Osborne, Jr., the deposition transcripts of both individuals and the plaintiffs' responses and objections to defendants' first set of interrogatories and second request for production of documents (CSX discovery response) for the purpose of understanding what burden the District of Columbia Terrorism Prevention in Hazardous Materials Transportation Emergency Act of 2005 ("the Act") may potentially impose upon interstate freight transportation.

9. Based on my review of the above-referenced documents, the information in the record does not demonstrate that CSX Transportation Inc. (CSX) would incur any significant harm as a result of compliance with the D.C. Act, and indeed compliance could result in a net benefit to carriers and/or shippers.

10. The information provided fails to support allegations of harm to CSX or its shippers for the following reasons:

a. CSX makes no attempt to estimate the additional costs that it would sustain in the event of a mandatory re-routing, purportedly on the grounds of impossibility. This clearly should not be the case, as the ongoing voluntary re-routing of hazardous materials along its North-South line through the District of Columbia which commenced in May, 2004 should provide a solid empirical base for the analysis. Although CSX has several months of operational experience to assess the financial impact of the ongoing voluntary re-routing burden, CSX conducted no computation or analysis of those costs.

b. the model used to estimate the effects of re-routing on freight car-miles does not identify the optimal routing if it would involve interchange with a second carrier. By disregarding any potential re-routing that would capitalize on the proximity of NSR lines CSX is overstating the impact of the re-routing by an indeterminate amount;

c. no nexus is demonstrable between the small estimated increase in the number of car-miles and suggested consequences including shortfalls in equipment, significantly lengthened and less reliable trip times, large increases in required train starts or the triggering of a congestion crisis.

11. Mr. Gibson, in his deposition, notes that “[r]ail cars carrying hazardous materials must comply with DOT and industry specifications.” Mr. Osborne asserts that “NSR’s handling of hazardous commodities shipments is governed by a comprehensive scheme of federal statutes and regulations.” In the context of the current proceedings, it is pertinent to point out that these “specifications” and laws do not extend to procedures governing security against intentional misuse of these commodities. That is, unlike the case of aviation for which the Transportation Security Agency has promulgated an extensive regulatory scheme, the rail industry is largely self-regulated with respect to

protection against terrorism. That is why CSX's re-routing of some shipments away from D.C. is described as "voluntary."

12. An illustration of the voluntary nature of the regulation of hazardous materials occurred when a credible terrorist threat occurred in Las Vegas. As reported by the New York Times on January 9, 2005, on December 31, 2003 a FRA inspector sent to the city to assess the (non-mandatory) security measures made in response to the threat found them to be "virtually nonexistent." Ten tank cars in two rail yards placarded for poisonous gas were left unguarded, in a third yard near several hotels the inspector was not challenged or spoken to by railroad crew members on site.

13. There are not, to my knowledge, any legal requirements that railroads guard access to hazardous material ("hazmat") cars, or any other car in which dangerous devices could be secreted. Nor, for that matter, do railroads in any systematic fashion ensure that the contents of a car are what is on the manifest. As described by Mr. Gibson in his deposition, inspections of hazmat cars does not extend to verifying their contents. (The industry's "Terrorism Risk Analysis and Security Management Plan," developed with the assistance of the Department of Defense, requires "[i]ncrease[d] vigilance and scrutiny of railcars and equipment during mechanical inspections looking for unusual items" only when the alert level is at its highest, in response to "a confirmed threat of attack against the railroad industry or actual attack in the U.S." The public version of the plan, and I am not privy to any classified provisions, does not require any *additional* inspections, only more careful ones in the event of an elevated alert.

14. The confusion evident in both Mr. Osborne's and Mr. Gibson's statements between federal *safety* regulation respecting the transportation of hazmat, designed to

minimize accidental releases of hazmat and which is comprehensive, and federal regulation of railroad *security*, designed to address a terrorist engineered non-accidental release, which is quite limited, results in erroneous conclusions as to the burden that the Act places on the public.

15. A clear instance of an erroneous conclusion being drawn from the conflation of safety and security is Mr. Osborne's statement that "NSR would not consent to any proposal to divert large volumes of CSX's hazardous materials traffic to NSR's lines, because such action would only transfer the risk inherent in the movement of those shipments from the District to the communities through which the NSR operates." It is obvious on its face that the transferred risk is only that of an accidental release, which is relatively small. The risk inherent in the attractiveness to a terrorist attack, which the Act is directed towards, moves only with the location of the Capital, and not with the hazmat. Not to belabor a point, even a cursory review of the location of major terrorist attacks over the past twenty-plus years, in which well over half occurred in nations' capitals, would make clear that people living along NSR's tracks need not fear that Al Qaeda will become interested in them if it accepts cars from CSX.

16. Mr. Gibson compounds the mistaken impression that the Act will *transfer* risk with the suggestion that it *inflates* risk. This occurs by stressing, in separate portions of his testimony, how safe hazmat movements are - traversing DC with only one, small, five-gallon release over the past several years - with how lengthening the distance, time in transit, and number of handlings of hazmat shipments can all have a serious (but unquantified) effect on risk.

17. The impression of inflation of risk is furthered by Mr. Gibson's observation that diversion will increase "handlings" and that "handlings" – low-speed operations where a car is attached or detached from a train – create the highest risk of accident.

18. However, the nature of the *severity* of the incident most likely to occur varies markedly depending upon whether it is an accident that results during the handling of a railcar, an accident involving a train moving at high speeds, or the consequence of a deliberate attack. Almost all of Mr. Gibson's "handling" accidents would result in no more than damage to the railcar, with no release of gases, and the second most likely type of accident would result in a small release – such as the five gallons spilled in the District incident which he refers to.

19. Severity is also wholly overlooked in the CSX modeling process, which aims to generate the most efficient routing. As Mr. Gibson acknowledges, the model does not take into consideration, nor does the railroad generally, the cost of imposing risks on the public. For example, there is no weight given to population densities in the communities through which a train might run, despite the fact that the repercussions of a release of hazmat gases are highly correlated with the population of the immediate community.

20. The fact that Mr. Gibson's analysis is unaffected by externalities – costs that are imposed upon the public at large as opposed to CSX's direct costs only – would appear to conflict with the purported concern that re-routing will have a negative affect on the environment.

21. While there could be a negative effect on the environment as a consequence of re-routing, this is not clearly so, as a locomotive-mile in the vicinity of D.C., which faces

severe air pollution problems, may be much more costly than a locomotive mile along the diversion route.

22. It is also not clear that the re-routing will result in any locomotive mile increase under any circumstance. The number of cars affected on a daily basis is sufficiently small, especially given that the cars would be distributed among multiple routes and trains, that CSX is not all that likely to have to redistribute motive power. That is, except on the rarest of occasions, CSX will not have to reassign or call up additional locomotives or crews in order to handle the re-routings.

23. The basis for my opinion that there would not be any significant negative impact upon CSX as a result of re-routing all Banned Materials previously routed through the District is as follows:

a. CSX transported 7,400,000 carloads of freight in 2004, according to Mr. Gibson's affidavit. As reported to the Association of American Railroads (AAR), CSX generated 5.556 billion car-miles in 2003, the most recent data available.

b. According to CSX, it carried 1,887 loaded rail cars that would be regulated by the Act on its North-South line and 4,731 loaded cars on its East-West line during 2003 and the first 91 days of 2004, for an annualized total of 5,294 cars *before* voluntary re-routing commenced. See CSX discovery response. Based on Mr. Gibson's analysis, an additional 231 car-miles would be required on average for each North-South line reroute and 135 miles for each East-West line re-route, which results in a total of 859,815 additional car-miles.

c. The total number of cars affected, not taking into account those re-routed voluntarily, represents one in every 1,398 loaded cars handled by CSX, or 0.072 percent

of CSX's traffic. The additional number of car-miles, which better reflects the work which must be performed by the carrier, equals one in 6,461 (based on 2003 car-miles), or 0.015 percent of CSX's total.

d. According to its discovery responses, following its voluntary re-route in May 2004, CSX carried 87 loaded cars from May 2004 through January 2005 on its North-South line and 1,645 loaded cars on its East-West line, which results in an annualized total of 2,313 cars, or 43.7 percent of the annualized rate of 5,294 cars which preceded the voluntary re-routing.

e. Therefore, the Act will require CSX to re-route only 2,313 regulated loaded cars a year on CSX's North-South line and East-West line combined, equal to a mere 0.03 percent of the 7,400,000 loaded cars CSX carried in 2004, and 0.007 percent – or one 14,000th of its car-miles. Moreover, it is likely the regulations referenced in the Act could provide a permitting scheme for empty placarded cars to travel within the Capital Exclusion Zone, eliminating the need to re-route any additional rail traffic.

f. Mr. Gibson testified that it took CSX three to four weeks, in May 2004, to implement the voluntary re-routing of the Banned Material traffic from CSX's North-South line. With this period of implementation, Mr. Gibson reported no serious impacts to the CSX rail network.

g. It is my opinion, given a period of time to implement re-routing of East-West traffic, and the continued voluntary re-routing of traffic from its North-South line, CSX will not suffer any significant negative impact on its rail operations from compliance with the Act.

24. There have been less than ten major chlorine releases (none resulting in over nine deaths) in the U.S. since tank car movements began just after World War I. Consider the following hypothetical: assume one major accident involving hazardous material regulated by the Act every five years. If CSX's share of banned materials traffic equals its share of rail car miles generally (15.6 percent in 2003), CSX would be expected to have one major accident every 32 years. If CSX banned material car-miles equals 36.4 million annually (69,000 banned material carloads as per Mr. Gibson, 528 miles average CSX length of haul as per AAR in 2003), this would mean that CSX would expect to have one major accident every 1.17 billion car-miles. Divided by the total increase in banned material car-miles resulting from the Act and voluntary re-routing *combined* (859,815), this suggests that CSX risks an additional major accident once every 1,356 years because of the diverted miles.

25. The actual additional level of risk imposed by re-routing appears to be negligible. However, if CSX interchanged a portion of cars with NSR, as it does with large numbers of cars today, the risk would be even smaller. This is because NSR has a substantially better safety record; it has won the Harriman award for railroad safety most of the past twenty years. In 2000, a not atypical year, NS had 2.87 train accidents per million train miles, CSX had 4.23 – or a 47.4 percent higher rate. For any car interchanged with NSR that reduces CSX miles, even if the total distance is greater than that which would occur without re-routing, there is a real possibility of a reduction in risk.

26. CSX and NSR operate similarly-sized and largely overlapping routes systems, with each serving most of the continental United States east of the Mississippi river. They are strong competitors of each other, but also interdependent, as Mr. Osborne noted

in his Declaration. NSR and CSX interchanged approximately 1.5 million rail cars in 2004, or about one in every nine cars, empty or loaded, handled by CSX. Out of 518,000 hazmat loads that Mr. Osborne stated was moved by CSX in that year, 21,000 were interchanged with NSR according to Mr. Gibson, or one in twenty-five. The 21,000 interchanged hazmat loads also represents just under six percent of the 366,000 hazmat loads that Mr. Osborne indicates were moved by NS.

27. Mr. Osborne, in his Declaration, claimed that NSR would not accept "large volumes" of re-routed CSX hazmat moves because this "would only transfer the risk inherent in the movement of those shipments from the District to the communities through which NSR operates." Because NSR already interchanges 21,000 rail car loads of hazmat annually from CSX, including the same materials covered under the Act, there is no legitimate safety rationale or business reason for rejecting what at most is an additional 2,313 full car loads annually. The only *transferable* risks are those risks associated with handling hazmat shipments in the normal day-to-day operation of the railroad. If these risks are objectionably high, it follows that NSR would reject *any* interchanged hazmat traffic, or *any* new business from shippers located on NS lines, and would presumably encourage existing shippers to divert their business to trucks at the earliest possible moment.

28. If Mr. Osborne's statement is interpreted to mean that NSR does not object to the risk associated with all hazmat traffic, but only the incremental risks generated by new traffic, presumably this would encompass not only that which would result from CSX re-routing via NSR rails, but also any risks associated with obtaining traffic won in the process of competitive bidding. Rejecting such new business would most certainly be a

highly unusual business practice; within the industry, winning traffic formerly carried by a competing railroad is normally a cause for celebration. However, under Mr. Osborne's assertion, NSR would forswear new hazmat business that in the past was routed through communities not on the NSR system.

29. Mr. Osborne attempted to buttress his point in deposition by indicating, as does Mr. Gibson, that shippers' statutory privilege to dictate routing would make the interchange of traffic diverted from the District difficult. The degree of difficulty is not made explicit, but the testimony is suggestive of this being a fairly significant impediment. However, neither Mr. Osborne or Mr. Gibson provide any explanation as to *why* a shipper would refuse consent to a new routing. Presumably, in response to the Act, CSX would explore an interchange movement with NSR only when the prospective routing could be to CSX's economic benefit. That is, it would only be pursued if, at the same cost to the shipper, CSX could earn a higher profit than it could if it handled the movement without interchange, and after taking into account the profit that NS would demand were it to accept the shipment. If the economics of the interchanged movement is superior, a rate would be offered to the shipper which would induce it to opt for the two-carrier routing. It would be the rarest of circumstances for shippers to "refuse to agree" to a changed routing, nor would a rational shipper demand that carriers do the impossible, and route their shipments over embargoed lines (at any given time, several railroad segments are under embargoes, usually for safety reasons.)

30. Finally, Mr. Gibson and Mr. Osborne allude to the "snowballing" potential of re-routed traffic to create significant congestion and disruption throughout the rail network. This effect certainly has been witnessed in the past, notably following the merger of the

UP and SP railroads and the acquisition of Conrail by NS and CSX. Each of these occurrences were precipitated by operational changes affecting millions of carloads, not 2,313 (the annual number of regulated cars traveling on CSX's North-South and East-West line combined). The capacity crunch which has afflicted the nation's railroads this past year occurred because the railroads underanticipated demand by roughly one million carloads, not the 2,313 cars CSX would have to re-route to comply with this Act. In my opinion, the rerouting of 2,313 rail cars under the Act could not result in any snowballing consequences of significance as described by Mr. Gibson and Mr. Osborne.

Executed on this 14th day of March, 2005.

A handwritten signature in black ink, appearing to read "Dan J. Shuman", written over a horizontal line.

David J. Shuman